

RESIDENTIAL BUILDING PERMIT DRAINAGE REVIEW

On undeveloped land, most rainwater soaks into the ground and flows slowly to nearby lakes and streams through the soil. When land is cleared or covered with impervious surface, the rainwater flows quickly across the site and can result in flooding and erosion which could cause a public safety hazard, property damage and harm environmental resources. Although single-family homes are typically small sites, the cumulative effect of uncontrolled rainwater from these sites can be significant to downstream property and water bodies. For this reason, any residential development in the City of Renton that creates at least 2,000 square feet but less than 5,000 sf of new impervious surface area is required to go through Residential Building Permit Drainage Review (Small Project Drainage Review). This process will assure that the applicant complies with the flow control and erosion and sediment control requirements as adopted by the City (RMC 4-6-030).

Appendix C of the *2009 King County Surface Water Design Manual* (KCSWDM) explains the submittal requirement for Residential Building Permit Drainage Review, the methods available for single-family flow control, and the erosion and sediment control measures. A copy of Appendix C may be found on the City's website (www.rentonwa.gov) on the Surface Water Design Standards page.

Flow control Best Management Practices (BMPs) are required to be constructed with residential building permits. Infiltration and dispersion for the roof area are the preferred methods of flow control, unless soil type or topography precludes its use. If infiltration or dispersion are not feasible or applicable, other methods include:

- Limited infiltration (see section C.2.3)
- Basic dispersion (see section C.2.4)
- Rain garden (see section C.2.5)
- Permeable pavement (see section C.2.6)
- Rainwater harvesting (see section C.2.7)
- Vegetated roof (see section C.2.8)
- Reduced impervious surface credit (see section C.2.9)
- Native growth retention credit (see section C.2.10)

Each method has associated restrictions that may make it inappropriate for certain sites. The applicant is advised to read each method carefully to determine which is most suitable for the site. A combination of methods may be used.

In most cases, the homeowner or contractor may prepare the plans. If the Projects contains or is adjacent to a flood, erosion, steep slope hazard area, landslide hazard area or landslide hazard drainage area; the City will require a geotechnical report and plans signed by an engineer or civil engineer licensed in the State of Washington.

To achieve the objective of single-family flow control, a Declaration of Covenant (per section C.5.2) for each flow control BMP (best management practice) identifying maintenance responsibility and granting the City access to inspect the Flow Control BMP shall be reviewed by the City prior to building permit issuance and recorded with King County prior to final building inspection. The Declaration of Covenant shall be signed (by the property owner or agent) and notarized. There are two versions of the declaration of covenant applicable to Residential Developments and can be found in the City's website (www.rentonwa.gov) on the Surface Water Design Standards page (one applicable for all flow control BMPs and one applicable for only the Impervious Surface Limit). Choose the document that is appropriate for your selected flow control BMP. The completed form shall be reviewed and approved by the City prior to recording.

Erosion and sediment control (ESC) is required for all projects resulting in land disturbing activity. Homeowners and contractors are responsible for implementation and maintenance of erosion control to prevent sediment from leaving the construction site. Erosion and sediment control (ESC) must be used both during and after construction as specified in section C.1.2.4 of the Surface Water Design Manual. All of the following ESC requirements must be evaluated for applicability to the proposed project:

- Mark Clearing Limits/Minimize Clearing
- Minimize Sediment Tracked Offsite
- Control Sediment
- Stabilize Exposed Soils
- Control Runoff
- Control Dewatering
- Control Other Pollutants
- Final Stabilization

The placement and type of proposed ESC measures are to be shown on the ESC plan for the proposed project. The contractor or other persons performing construction activities shall comply with the stormwater pollution prevention measures/BMPs specified for such activities in the King County *Stormwater Pollution Prevention Manual*.

Please see the Residential Building Permit Drainage Review Checklist for drainage review submittal requirements.